

Listing of the Claims

All pending claims are reproduced below for the convenience of the Examiner. No claims are currently being canceled, amended or added.

1. (Previously presented): An ion generator comprising:
a first electrode;
a hollow second electrode;
a voltage generator electrically coupled to the first electrode and the second electrode in order, when energized, to create a flow of air in a downstream direction from the first electrode to the second electrode; and
wherein said hollow second electrode is formed to have a leading nose and two side walls with ends to the side walls bent back to substantially meet each other.
2. (Previously presented): The ion generator of claim 1 wherein said hollow second electrode is of one-piece construction.
3. (Original): The ion generator of claim 1 wherein the side walls have outer surfaces, and the outer surfaces of each of the side walls are bent back adjacent to the ends of the side walls so that the outer surfaces of the side walls are adjacent to each other.
4. (Original): The ion generator of claim 1 wherein the side walls have outer surfaces, and the outer surfaces of each of the side walls are bent back adjacent to the ends of the side walls so that the outer surfaces of the side walls face each other.

5. (Original): The ion generator of claim 1 wherein the side walls have outer surfaces, and the outer surfaces of each of the side walls are bent back adjacent to the ends of the side walls so that the outer surfaces of the side walls touch to each other.

6. (Previously presented): The generator of claim 1 wherein said first electrode is an ion emitter and the hollow second electrode is a collector of particulate matter.

7. (Previously presented): The generator of claim 1 wherein said first electrode is positively charged and the hollow second electrode is negatively charged.

8. (Original): The generator of claim 1 wherein said first electrode is pin-shaped.

9. (Previously presented): An ion generator comprising:

a first electrode;

a hollow second electrode;

a voltage generator electrically coupled to the first electrode and the second electrode in order, when energized, to create a flow of air in a downstream direction from the first electrode to the second electrode; and

wherein said hollow second electrode is formed to have two side walls with ends to the side walls bent back to substantially meet each other in order to form a smooth trailing edge on said second electrode.

10. (Previously presented): The ion generator of claim 9 herein said hollow second electrode is of one-piece construction.

11. (Original): The ion generator of claim 9 wherein the side walls have outer surfaces and the outer surfaces of each of the side walls are bent back adjacent to the ends of the side walls so that the outer surfaces of the side walls are adjacent to each other.

12. (Original): The ion generator of claim 9 wherein the side walls have outer surfaces and the outer surfaces of each of the side walls are bent back adjacent to the ends of the side walls so that the outer surfaces of the side walls face each other.

13. (Original): The ion generator of claim 9 wherein the side walls have outer surfaces and the outer surfaces of each of the side walls are bent back adjacent to the ends of the side walls so that the outer surfaces of the side walls touch to each other.

14. (Previously presented): The generator of claim 9 wherein said first electrode is an ion emitter and the hollow second electrode is a collector of particulate matter.

15. (Previously presented): The generator of claim 9 wherein said first electrode is positively charged and the hollow second electrode is negatively charged.

16. (Original): The generator of claim 9 wherein said first electrode is pin-shaped.

17. (Previously presented): A device for conditioning air, including:
- a housing with an air inlet and an air outlet
 - a first electrode;
 - a hollow second electrode;
 - said first electrode located closer to said air inlet than said second electrode;
 - said second electrode located closer to said air outlet than said first electrode;
 - a potential generator electrically coupled to the first electrode and the second electrode in order, when energized, to create a flow of air in a downstream direction from the first electrode to the second electrode; and
 - wherein said hollow second electrode is formed to have two side walls with ends to the side walls bent back to substantially meet the other side wall in order to form a smooth trailing edge on said second electrode.
18. (Previously presented): The generator of claim 1 wherein when said voltage generator is energized, ions are generated at said first electrode and flow toward said hollow second electrode.
19. (Previously presented): The generator of claim 9 wherein when said voltage generator is energized, ions are generated at said first electrode and flow toward said hollow second electrode.

20. (Previously presented): The device of claim 17 wherein when said potential generator is energized, ions are generated at said first electrode and flow toward said hollow second electrode.

21. (Previously presented): The ion generator of claim 1 wherein said hollow second electrode is removable by a user for cleaning.

22. (Currently Amended): The ion generator of claim 9 wherein said hollow second electrode is removable by a user for cleaning.

23. (Previously presented): The device of claim 17 wherein said hollow second electrode is removable by a user for cleaning.

24. (Original): The generator of claim 1 wherein:

said generator is incorporated in a housing and said housing comprises an electro-kinetic air transporter-conditioner.

25. (Original): The generator of claim 9 wherein:

said generator is incorporated in a housing and said housing comprises an electro-kinetic air transporter-conditioner.

26. (Previously presented): The generator of claim 1 wherein:

said generator is incorporated in a housing and said housing comprises an electro-kinetic air transporter-conditioner and said housing has a top and said hollow second electrode is removable from said top for cleaning.

27. (Previously presented): The generator of claim 9 wherein:

said generator is incorporated in a housing and said housing comprises an electro-kinetic air transporter-conditioner and said housing has a top and said hollow second electrode is removable from said top for cleaning.

28. (Previously presented): The device of claim 17 wherein:

said housing has a top and said hollow second electrode is removable from said top for cleaning.

29. (Previously presented): The generator of claim 1 wherein:

said generator is incorporated in an elongated freestanding housing with a top and said housing comprises an electro-kinetic air transporter-conditioner; and

wherein said hollow second electrode is elongated and is removable from said top of said housing.

30. (Previously presented): The generator of claim 9 wherein:

said generator is incorporated in an elongated freestanding housing with a top and said housing comprises an electro-kinetic air transporter-conditioner; and

wherein said hollow second electrode is elongated and is removable from said top of said housing.

31. (Previously presented): The generator of claim 17 wherein:

said housing is an elongated freestanding housing with a top; and

wherein said hollow second electrode is elongated and is removable from said top of said housing.

32. (Previously presented): The generator of claim 1 wherein:

said generator is incorporated in an elongated freestanding housing with a top and said housing comprises an electro-kinetic air transporter-conditioner; and

wherein said hollow second electrode is elongated and is at least partially removable from said top of said housing.

33. (Previously presented): The generator of claim 9 wherein:

said generator is incorporated in an elongated freestanding housing with a top and said housing comprises an electro-kinetic air transporter-conditioner; and

wherein said hollow second electrode is elongated and is at least partially removable from said top of said housing.

34. (Previously presented): The device of claim 17 wherein:

said housing is an elongated freestanding housing with a top; and

wherein said hollow second electrode is elongated and is at least partially removable from said top of said housing.

35. (Previously presented): The generator of claim 1 wherein:

said generator is incorporated in an elongated freestanding housing with a top and said housing comprises an electro-kinetic air transporter-conditioner; and

wherein said hollow second electrode is elongated and is telescopingly removable through said top of said housing.

36. (Previously presented): The generator of claim 9 wherein:

said generator is incorporated in an elongated freestanding housing with a top and said housing comprises an electro-kinetic air transporter-conditioner; and

wherein said hollow second electrode is elongated and is telescopingly removable through said top of said housing.

37. (Previously presented): The device of claim 17 wherein:

said housing is an elongated freestanding housing with a top; and

wherein said hollow second electrode is elongated and is telescopingly removable through said top of said housing.

38. (Previously presented): The device of claim 17 wherein said hollow second electrode is of one-piece construction.

39. (Original): The device of claim 17 wherein the side walls have outer surfaces and the outer surfaces of each of the side walls are bend back adjacent to the ends of the side walls so that the outer surfaces of the side walls are adjacent to each other.

40. (Original): The device of claim 17 wherein side walls have outer surfaces and the outer surfaces of each of the side walls are bent back adjacent to the ends of the side walls so that the outer surfaces of the side walls face each other.

41. (Original): The device of claim 17 wherein the side walls have outer surfaces and the outer surfaces of each of the side walls are bent back adjacent to the ends of the side walls so that the outer surfaces of the side walls touch to each other.

42. (Previously presented): The device of claim 17 wherein said first electrode is an ion emitter and the hollow second electrode is a collector of particulate matter.

43. (Previously presented): The device of claim 17 wherein said first electrode is positively charged and the hollow second electrode is negatively charged.

44. (Original): The device of claim 17 wherein said first electrode is pin-shaped.

45. (Previously presented): An electrostatic air transport-conditioner, comprising:
a housing having an inlet and an outlet; and

an ion generator that creates an airflow in a downstream direction from the inlet to the outlet, including:

a first electrode;

a hollow second electrode, located downstream of said first electrode, having a nose and two trailing sides extending downstream, towards said outlet, from said nose;

said trailing sides include an end section that is formed inward, back towards said nose, such that substantially no gap exists between said trailing sides; and

a high voltage generator electrically connected to said first and second electrode.

46. (Previously presented): An electrostatic air transport-conditioner as recited in claim 45, wherein said first electrode and said second electrode have opposite polarities when said ion generator is polarized.

47. (Previously presented): An electrostatic air transport-conditioner as recited in claim 45, wherein said hollow second electrode is constructed out of a single piece of material.

48. (Previously presented): An electrostatic air transport-conditioner as recited in claim 45, wherein said trailing sides of said hollow second electrode are spot welded.

49. (Previously presented): An electrostatic air transport-conditioner as recited in claim 45, wherein said hollow second electrode is removable from said housing for cleaning.

50. (Previously presented): An electrostatic air transport-conditioner as recited in claim 49, wherein said housing further has a top surface, and said hollow second electrode is telescopically removable through said top surface of said housing.

51. (Previously presented): An electrostatic air transport-conditioner, comprising:

- a housing having an inlet and an outlet; and
- an ion generator, for creating an airflow in a downstream direction from the inlet to the outlet, including:
 - a first electrode;
 - a hollow second electrode, located downstream of said first electrode, having a nose and two trailing sides extending downstream, towards said outlet, from said nose;
 - said trailing sides include an end section that is formed by bending said trailing sides inward and back towards said nose, such that said end sections are adjacent to each other and within said trailing sides of said second electrode; and
 - a high voltage generator electrically connected to said first electrode and said second electrode.

52. (Previously presented): An electrostatic air transporter-conditioner as recited in claim 51, wherein said first electrode and said second electrode have opposite polarities when said ion generator is energized.